

What is claimed is:

5 1. A wireless channel setting method for a mobile communication system in which a common channel, which all mobile stations are permitted to use for signal exchange at the start of communication, and an individual channel, which is tuned through the setting process for each mobile station, are switched so as to be used as a wireless channel between a mobile station and a wireless base station, the method comprising the steps of:

10 (a) the wireless base station receives a transmission signal from a specific mobile station through the common channel, and compares a transmission power value to transmit to the mobile station with a predetermined threshold value;

15 (b) when the transmission power value is lower than the predetermined threshold value, the wireless base station continues the signal transmission/reception, through the common channel, with the specific mobile station; and

20 (c) when the transmission power value exceeds the predetermined threshold value, the wireless base station sets an individual channel and continues signal transmission/reception, through the individual channel, with the specific mobile station.

25 2. A wireless channel setting method for a mobile communication system between the mobile station and the wireless base station in which a common channel, which every mobile station is permitted to use for signal exchange at the start of communication, and an individual channel which is tuned through the setting process for each mobile station, are switched so as to obtain a wireless channel for use by a mobile station and a wireless base station, the method comprising the steps of:

30 (a) the wireless base station receives a transmission signal from a specific mobile station through the common channel, and compares the communication quality level to transmit with the mobile station with the predetermined threshold;

(b) when the communication quality level is lower than the

predetermined threshold value, the wireless base station continues the signal transmission/reception, through the common channel, with the specific mobile station; and

5 (c) when the communication quality level exceeds the predetermined threshold value, the wireless base station sets an individual channel and continues the signal transmission/reception, through the individual channel, with the specific mobile station.

10 3. A wireless channel setting method for a mobile communication system in which a common channel, which every mobile station is permitted to use for signal exchange at the start of communication, and an individual channel, which is tuned through the setting process for each mobile station, are switched so as to obtain a wireless channel for use by a mobile station and a wireless base station, the method comprising the steps of:

15 (a) the base wireless station receives a signal from a specific mobile station through the common channel, and compares a utilization ratio of the common channel with a predetermined threshold value;

20 (b) when the utilization ratio of the common channel is lower than the predetermined threshold value, the base wireless station continues the signal transmission/reception, through the common channel, with the specific mobile station; and

25 (c) when the utilization ratio of the common channel exceeds the predetermined threshold value, the wireless base station sets an individual channel and continues the signal transmission/reception, through the individual channel, with the specific mobile station.

4. A mobile communication apparatus comprising:

a control signal processor for setting and switching wireless signals in accordance with a received instruction;

30 a wireless channel setting controller for determining which wireless channel is to be used by each mobile station based on a notified transmission power over the common channel, and for instructing the wireless channel to be used to the control signal processor; and

a transmission power measuring unit for measuring the transmission power value over the wireless channel for each mobile station, and for notifying the transmission power value to the wireless channel setting controller,

5 wherein the wireless channel setting controller compares the transmission power value provided by a specific mobile station through the common channel with a predetermined threshold value and,

10 when the transmission power value is lower than the predetermined threshold value, the wireless channel setting controller continues the transmission/reception of signals through the common channel with the specific mobile station, and

15 when the transmission power value exceeds the predetermined threshold value, the wireless channel setting controller sets the individual channel for the specific mobile station and transmits an instruction to the control signal processor to continue the transmission/reception of signals through the individual channel.

5. A mobile communication apparatus comprising:

a control signal processor for setting and switching wireless signals in accordance with a received instruction;

20 a wireless channel setting controller for determining which wireless channel is to be used for each mobile station based on a notified communication quality level for each mobile station, and for instructing the wireless channel to be used to the control signal processor; and

25 a communication quality measuring unit for measuring the communication quality level for each mobile station, and for notifying the communication quality to the wireless channel setting controller,

30 wherein the wireless channel setting controller compares the communication quality level of a signal which is transmitted from a specific mobile station through a common channel with a predetermined threshold value and,

when the communication quality level is lower than the predetermined

threshold value, the wireless channel setting controller continues the transmission/reception of signals through the common channel, with the specific mobile station, and

5 when the communication quality level exceeds the predetermined threshold value, the wireless channel setting controller sets an individual channel for the specific mobile station and transmits an instruction to the control signal processor to continue the transmission/reception of signals through the individual channel.

6. A mobile communication apparatus comprising:

10 a control signal processor for setting and switching wireless signals in accordance with a received instruction;

15 a wireless channel setting controller for determining which wireless channel is to be used for each mobile station based on a notified usage ratio for a common channel, and for instructing the wireless channel to be used to the control signal processor; and

a utilization ratio measuring unit for measuring the utilization ratio for the common channel, and for notifying the utilization ratio to the wireless channel setting controller,

20 wherein the wireless channel setting controller compares the utilization ratio for the common channel obtained when a signal is received from a specific mobile station through the common channel with a predetermined threshold value and,

25 when the utilization ratio for the common channel is lower than the predetermined threshold value, the wireless channel setting controller continues the transmission/reception of signals, through the common channel, with the specific mobile station, and

30 when the utilization ratio for the common channel exceeds the predetermined threshold value, the wireless channel setting controller sets an individual channel for the specific mobile station and transmits an instruction to the control signal processor to continue the transmission/reception of signals through the individual channel.